AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A pen-shaped input system using a magnetic sensor, comprising:

a magnetic field detection unit mounted in a pen-shaped body which detects a tilt angle of the pen-shaped body based on a movement of the pen-shaped body;

an acceleration detection unit mounted in the pen-shaped body which detects respective axial direction accelerations of the movement of the pen-shaped body; and

a control unit which calculates absolute coordinates of the movement of the pen-shaped body from the tilt angle measured at the magnetic field detection unit and the acceleration measured at the acceleration detection unit.

2. (original): The pen-shaped input system as claimed in claim 1, wherein the control unit converts 3-axis acceleration measurement values detected at the acceleration detection unit into measurement values of a pen tip of the pen-shaped body to generate converted measurement values, and applies the converted measurement values of the pen tip for calculating absolute coordinates.

3. (previously presented): The pen-shaped input system as claimed in claim 1, further comprising a communication module which transmits data to an external computing device,

wherein the control unit controls the communication module to transmit the tilt angle detected at the magnetic field detection unit and the acceleration detected at the acceleration detection unit to the external computing device.

4. (previously presented): A coordinate measurement method for a pen-shaped input system, comprising steps of:

detecting a tilt angle and three-dimensional axial direction acceleration based on a movement of a pen-shaped body at a magnetic field detection unit and an acceleration detection unit, respectively, wherein the magnetic field detection unit and the acceleration detection unit are mounted in the pen-shaped body; and

calculating absolute coordinates of the pen-shaped body from the tilt angle detected at the magnetic field detection unit and the acceleration detected at the acceleration detection unit.

5. (original): The coordinate measurement method as claimed in claim 4, further comprising converting 3-axial acceleration measurement values detected at the acceleration detection unit into an acceleration value of a pen tip of the pen-shaped body, wherein the operation of calculating the absolute coordinates of the pen-shaped body calculates the absolute coordinates of the pen-shaped body with the acceleration value of the pen tip.

6. (original): The coordinate measurement method as claimed in claim 4, further comprising transmitting the tilt angle detected at the magnetic field detection unit and the acceleration detected at the acceleration detection unit to an external computing device.

7. (previously presented): A handheld input system using a magnetic sensor,

comprising:

a magnetic field detection unit mounted in a handheld body which detects a tilt angle of the handheld body based on a movement of the handheld body;

an acceleration detection unit mounted in the handheld body which detects respective axial direction accelerations of the movement of the handheld body; and

a control unit which calculates absolute coordinates of the movement of the handheld body from the tilt angle measured at the magnetic field detection unit and the acceleration measured at the acceleration detection unit.

8. (currently amended): A coordinate measurement method for a handheld input system, comprising steps of:

detecting a tilt angle and three-dimensional axial direction ~~an~~ acceleration based on a movement of a handheld body at a magnetic field detection unit and an acceleration detection unit, respectively, wherein the magnetic field detection unit and the acceleration detection unit are mounted in the handheld body; and

calculating absolute coordinates of the handheld body from the tilt angle detected at the magnetic field detection unit and the acceleration detected at the acceleration detection unit.

~~detecting a tilt angle and three-dimensional axial direction an acceleration based on a movement of a handheld body at a magnetic field detection unit and an acceleration detection unit, respectively, wherein the magnetic field detection unit and the acceleration detection unit are mounted in the handheld body; and~~

~~calculating absolute coordinates of the handheld body from the tilt angle detected at the magnetic field detection unit and the acceleration detected at the acceleration detection unit.~~

9. (new): The pen-shaped input system as claimed in claim 1, wherein the control unit calculates a handwriting trajectory of a tip of the pen-shaped body based on the absolute coordinates of the movement of the pen-shaped body.

10. (new): The coordinate measurement method as claimed in claim 4 further comprising calculating a handwriting trajectory of a tip of the pen-shaped body based on the absolute coordinates of the pen-shaped body.

11. (new): The coordinate measurement method as claimed in claim 6, wherein the calculating the absolute coordinates is carried out in the external computing device.

12. (new): The handheld input system as claimed in claim 7, wherein the control unit calculates a handwriting trajectory of a tip of the pen-shaped body based on the absolute coordinates of the movement of the pen-shaped body.

13. (new): The coordinate measurement method as claimed in claim 8, further comprising calculating a handwriting trajectory of a tip of the pen-shaped body based on the absolute coordinates of the pen-shaped body.

14. (new): The coordinate measurement method as claimed in claim 8, wherein the calculating the absolute coordinates is carried out in an external computing device.